Ontario

Ministry of Northern Development and Mines

Mines and Minerals Division

ONTARIO GEOLOGICAL SURVEY

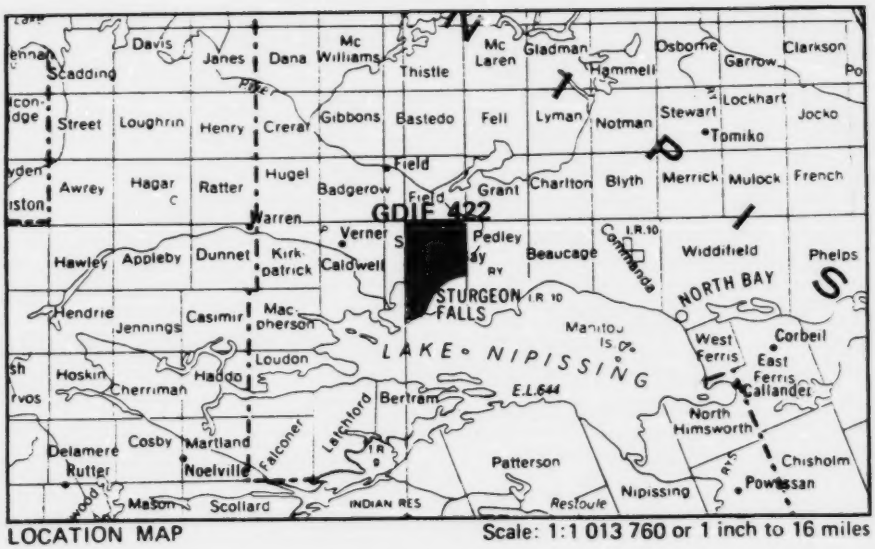
GEOLOGICAL DATA INVENTORY FOLIO 422

GDIF 422

SPRINGER TOWNSHIP

DISTRICT OF NIPISSING

Complied by the Staff of
the Resident Geologist's Office
Sudbury



LOCATION MAP

Scale: 1:1 013 760 or 1 inch to 16 miles

NTS Number 31 L/5, 41 I/8

Mining Claim Map Number M-1123

STATEMENT: This inventory is unedited. Discrepancies may occur for which the Ontario Geological Survey does not assume liability. Information from this source may be quoted if credit is given. Reference to this inventory should be made as follows:

Ontario Geological Survey

1987: Springer Township, District of Nipissing, Ontario Geological Survey, Geological Data Inventory Folio 422, compiled by the staff of the Resident Geologist's Office in Sudbury, 17p. and 2 maps.

Original Compilation by: R. Adlington, May 20, 1987

Date	Page Revised	Revised by

Date	Page Revised	Revised by

TABLE OF CONTENTS

Data Sources Checklist 1

Metals and Minerals Reference List 2

Mineral Occurrences 3

Type of Work 4

Drill Hole Summary 5

Airborne Geophysical Survey Data 6

Geochemical Survey Data 7

Miscellaneous Data 8

Newspaper Clipping File 9

ODM General Index Search 10-11

Selected References 12-15

Notes and Addenda 16

ACCOMPANYING MAPS

Property Location Map 1 map

Exploration Data Map 1 map

Map Scale 1: 31 680 or 1 inch to ½ mile

CONVERSION FACTORS FOR MEASUREMENTS IN ONTARIO GEOLOGICAL SURVEY PUBLICATIONS

If the reader wishes to convert imperial units to SI (metric) units or SI units to imperial units the following multipliers should be used:

CONVERSION FROM SI TO IMPERIAL			CONVERSION FROM IMPERIAL TO SI		
SI Unit	*Multiplied by*	*Gives*	*Imperial Unit*	*Multiplied by*	*Gives*
			LENGTH		
1 mm	0.039 37	inches	1 inch	**25.4**	mm
1 cm	0.393 70	inches	1 inch	**2.54**	cm
1 m	3.280 84	feet	1 foot	**0.304 8**	m
1 m	0.049 709 7	chains	1 chain	**20.116 8**	m
1 km	0.621 371	miles (statute)	1 mile (statute)	**1.609 344**	km
			AREA		
1 cm^2	0.155 0	square inches	1 square inch	**6.451 6**	cm^2
1 m^2	10.763 9	square feet	1 square foot	**0.092 903 04**	m^2
1 km^2	0.386 10	square miles	1 square mile	2.589 988	km^2
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
			VOLUME		
1 cm^3	0.061 02	cubic inches	1 cubic inch	**16.387 064**	cm^3
1 m^3	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m^3
1 m^3	1.308 0	cubic yards	1 cubic yard	0.764 555	m^3
			CAPACITY		
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	**4.546 090**	L
			MASS		
1 g	0.035 273 96	ounces (avdp)	1 ounce (avdp)	**28.349 523**	g
1 g	0.032 150 75	ounces (troy)	1 ounce (troy)	**31.103 476 8**	g
1 kg	2.204 62	pounds (avdp)	1 pound (avdp)	**0.453 592 37**	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	**907.184 74**	kg
1 t	1.102 311	tons (short)	1 ton (short)	**0.907 184 74**	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	**1016.046 908 8**	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	**1.016 046 908 8**	t
			CONCENTRATION		
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

1 ounce (troy)/ton (short)	20.0	pennyweights/ton (short)
1 pennyweight/ton (short)	0.05	ounce (troy)/ton (short)

One gram(g) per tonne is equivalent to one part per million (1 ppm).

NOTE–Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries published by The Mining Association of Canada in co-operation with the Coal Association of Canada.

DATA SOURCES CHECK LIST

NOTE: The following sources have been searched to compile the data for this area. If no reference data was found the appropriate box is marked 'no'; if reference data was found, the box is marked 'yes'.

All reference data found are included in the following pages. If the box is blank, the data source has not yet been searched. If the box is marked N.A., the source item is Not Applicable to this area and therefore not searched.

	SOURCES OF DATA	Data	Initial
1	Resident Geologist's Office Files	Yes	R.A.
2	Assessment Files Research Office, Toronto	N.A.	R.A.
3	ODM General Index; 9 Volumes	Yes	R.A.
4	Catalogue of Airborne Geophysical Surveys (ODM)	No	R.A.
5	ODM Mineral Resources Circulars and OGS Mineral Deposits Circulars	Yes	R.A.
6	ODM Industrial Mineral Reports	No	R.A.
7	Bibliography of Post Precambrian Theses - Karrow (ODM MP 1)	No	R.A.
8	Bibliography of Precambrian Theses - Ginn (ODM MP 2)	No	R.A.
9	Newspaper Clippings File	No	R.A.
10	GSC Index to Publications	No	R.A.
11	OGS Index to Published Maps and Reports - MP 77 and Supplements to MP 77	Yes	R.A.
12	OGS Index Maps	Yes	R.A.
13	Source Mineral Deposit Records (O.G.S.), Mineral Deposits Inventory	Yes	R.A.
14	Author - Subject Articles File	No	R.A.
15	Miscellaneous Papers: ODM & OGS	No	R.A.
16	ODM Geological Circulars: OGS Study Series, Reports	Yes	R.A.
17	ODM Preliminary Reports: ODM Bulletins	No	R.A.
18	ODM – OGS Open File Reports	Yes	R.A.
19	OGS Northern Ontario Engineering Geology Terrain Studies	Yes	R.A
20	OGS Aggregate Resources Inventory Papers	No	R.A.
21	OGS Mineral Potential Maps	Yes	R.A.
22	Theses on File, Sudbury	Yes	R.A.
23	Aerial Photographs on File, Sudbury	No	R.A.

METALS AND MINERALS REFERENCES LIST

△ anh. . . . . .Anhydrite
△ ank. . . . . .Ankerite
△ anna . . . . . Annabergite
△ ap. . . . . .Apatite
△ arg . . . . . Argentite
△ As . . . . . .Arsenic
△ asp . . . . . .Arsenopyrite
△ asb . . . . . .Asbestos
△ ba. . . . . .Barite
△ be. . . . . .Beryl
△ Bi. . . . . .Bismuth
△ bn . . . . . .Bornite
△ bran . . . . . .Brannerite
△ bruc . . . . . .Brucite
△ Cd . . . . . Cadmium
△ calc. . . . . .Calcite
△ carb . . . . . .Carbonate
△ cel . . . . . .Celestite
△ cc. . . . . .Chalcocite
△ cp. . . . . .Chalcopyrite
△ ch. . . . . .Chert
△ clay . . . . . .Clay
△ Co . . . . . Cobalt
△ cob. . . . . Cobaltite
△ cb. . . . . .Columbite
△ Cu . . . . . .Copper
△ cor . . . . . Corundum
△ dol . . . . . Dolomite
△ ep. . . . . Epidote
△ ery . . . . . Erythrite
△ fel . . . . . .Feldspar
△ fl . . . . . .Fluorite (flurospar)
△ fu. . . . . .Fuchsite
△ gn. . . . . .Galena
△ gt. . . . . .Garnet
△ goe . . . . . .Goethite
△ Au . . . . . Gold
△ gf. . . . . .Graphite
△ gl . . . . . Gravel
△ gyp. . . . . .Gypsum
△ hem . . . . . Hematite
△ il . . . . . .Ilmenite
△ Fe . . . . . .Iron
△ IF. . . . . Iron Formation
△ jas . . . . . Jasper
△ kaol . . . . . .Kaolinite (kaolin)
△ ky . . . . . Kyanite
△ Pb . . . . . Lead
△ lim . . . . . Limonite
△ Li. . . . . Lithium
△ mgst . . . . . .Magnesite
△ mag . . . . . .Magnetite
△ mc . . . . . .Malachite
△ Mn . . . . . Manganese
△ mb . . . . . .Marble
△ mar. . . . . Marcasite
△ ma . . . . . .Marl
△ mi . . . . . Mica
△ ml . . . . . .Millerite
△ mo . . . . . Molybdenite
△ Mo . . . . . .Molybdenum
△ mon . . . . . Monazite
△ ne. . . . . Nephelite (nepheline)
△ nc. . . . . .Niccolite
△ Ni. . . . . Nickel
△ Nb . . . . . .Niobium
△ Pd . . . . . .Palladium
▲ peat . . . . . .Peat
△ pent . . . . . .Pentlandite
△ Pt. . . . . .Platinum
△ py . . . . . .Pyrite
△ pyl . . . . . Pyrochlore
△ pyrl . . . . . .Pyrolusite
△ po . . . . . .Pyrrhotite
△ q . . . . . .Quartz
△ qcv . . . . .Quartz carbonate vein
△ ra. . . . . .Radioactive minerals
▲ RE . . . . . .Rare Earths
△ sd. . . . . Sand
△ sgl . . . . . Sand and gravel
△ ss . . . . . .Sandstone
△ scap . . . . . Scapolite
△ shee . . . . . .Scheelite
△ serp . . . . . Serpentine
△ sh. . . . . .Shale
△ sid . . . . . Siderite
△ si . . . . . .Silica
△ Ag . . . . . .Silver
△ sl . . . . . Slate
△ sm . . . . . .Smaltite
△ sod . . . . . .Sodalite
△ spec . . . . . Specularite
△ sp. . . . . .Sphalerite
△ spd . . . . . .Spodumene
△ staur . . . . . .Staurolite
△ stib. . . . . Stibnite
△ st . . . . . .Stone
△ talc. . . . . .Talc
△ Te . . . . . Tellurium
△ td. . . . . Tetrahedrite
△ th. . . . . .Thorite
△ Th . . . . . .Thorium
△ thuc . . . . . Thucholite
△ ti . . . . . Titanite
△ Ti. . . . . Titanium
△ tour . . . . . .Tourmaline
△ trap . . . . . .Trap rock
△ W. . . . . Tungsten
△ uran . . . . . Uraninite
△ U . . . . . .Uranium
△ verm . . . . . .Vermiculite
△ Y . . . . . Yttrium
△ Zn . . . . . .Zinc
△ zr. . . . . Zircon
▲ Ce . . . . . .Cerium

Solid triangles indicate metal and mineral occurrences shown on the accompanying maps.

SPRINGER TOWNSHIP

MINERAL OCCURRENCES

Map Ref. Letter	Name(s)	Mineralization	Source Mineral Deposit Record	References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports	Additional References and/or Remarks
A	Lavergne	Ce, RE	SMDR 435	--	Assessment File 0010
B	Springer Township Bog	peat	--	O.G.S. MDC 19	p.p. 20-23, 87, 117

GDIF FORM NO. 1

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE SUDBURY COMPANY/AUTHOR (file number)		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY			
1	East Bay Mines Ltd. (Pedley 0010)											53[1]		53						
2	Frederick, G. L. (0011-A1)			69?		69														
3	Lavergne, R.	66																		
4	Lavergne Rare Earths Property (Keevil Mining Group, Teck Corp.)	68		68?	69	68 69								68?[2]						

[1] No anomaly
[2] No data

GDIF FORM NO. 2

DRILLHOLE SUMMARY

Map Drilling Location Number	Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
1	Lavergne Rare Earths prop. (Keevil Mining Group, Teck Corp.)	L69-1	1969	W	46	10	854	bastnaesite, py fl, cp, rutile	Ce
2		L69-2	1969	N40W	43	14	525	fl, py, il, hem	Ce
3		L69-3	1969	N20W	50	14	706	fl, py, hem	Ce
4		L69-4	1969	W	45	17	862	bastnaesite, py, fl, rutile, hem, gn	Ce

GDIF FORM NO. 3

AIRBORNE GEOPHYSICAL SURVEY DATA

No.	By For	Type of Survey	Flight Altitude	Flight Line Direction	Flight Line Spacing

GDIF FORM NO. 4

SPRINGER TOWNSHIP

Map Sample Site Reference Number	GEOCHEMICAL SURVEY DATA		By	Reference
	Type of Survey	Analysis For		

GDIF FORM NO. 5

MISCELLANEOUS DATA

AGE DATING

Site	Method	Material	Reference	Result

GDIF FORM NO.6

NEWSPAPER CLIPPINGS FILE

NOTE: A file of newspaper clippings about the companies listed below, who have worked in this area, is maintained in the Regional/Resident Geologist's Office.

GDIF FORM NO. 7

ODM GENERAL INDEX SEARCH

Words searched:

CERIUM
DONOVAN, J. F.
EAST BAY GOLD MINES
FREDERICK, G. L.
KEEVIL MINING GROUP
LAVERGNE PROPERTY
LAVERGNE, R.
LAVERGNE RARE EARTHS
MACDONNELL, A.
MALARTIC GOLD FIELDS

Index Volume	Listing:	Report Volume	Part	Page
6	CERIUM			
	In allanite, French [illegible]	69	8	188
	Production (1955)	65	1	2, 23
	Cerium (Monmouth Tp., Haliburton Co.)	65	2	143
7	CERIUM			
	Production			
	Value (to 1963)	73		8
9	CERIUM			
	Ontario	MPBP 11		7.1
8	EAST BAY GOLD LTD.			
	Springer Tp., Nipissing Dist.	GR 94		78
1	SPRINGER TP., Nip.			
	Prospecting	16	1	40
8	SPRINGER TP., NIPISSING DIST.			
	Geology of the Burwash area	GR 116		
	Geology of the North Bay area	GR 94		
9	SPRINGER TP., NIPISSING DIST.			
	peat	MDC 19		20-23, 87, 117

GDIF FORM NO. 8

ODM GENERAL INDEX SEARCH

Words searched:

RARE EARTH ELEMENTS
SPRINGER TP.

Index Volume	Listing:	Report Volume	Part	Page

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
		REGIONAL GEOLOGICAL COMPILATION MAPS		
Card, K. D., et al	1971	Sudbury-Cobalt Sheet	ODMNA Map 2188	1" = 4 miles
Card, K. D., Lumbers, S. B.	1977	Sudbury-Cobalt Sheet	O.G.S. Map 2361	1" = 4 miles
		GEOPHYSICAL MAPS		
O.D.M. - G.S.C.		Aeromagnetic Maps		
	1965	Verner Sheet, 41 I/8	1500G	1" = 1 mile
	1965	Sturgeon Falls Sheet 31 L/5	1488G	1" = 1 mile
	1965	North Bay	7066G	1" = 4 miles
	1965	Sudbury	7067G	1" = 4 miles
O.G.S. - G.S.C.	1976	Uranium Reconnaissance Program Airborne Gamma Ray Spectrometer Survey, Sudbury	Map P.1610	1:250,000
	1978	Uranium Reconnaisance Program Airborne Gamma Ray Spectrometer Survey, North Bay	Map P.1649	1:250,000
Gupta, V. K., Wadge, D. R.	1980	Bouger Gravity and Generalized Geological Map, North Bay - Marten River Area	O.G.S. Map P.2297	1:100,000
		SURFICIAL, PLEISTOCENE, TERRAIN ENGINEERING		
Boissonneau, A. N.	1968	Glacial History of Northwestern Ontario II. The Temiskaming - Algoma Area	Can. Jr. Earth Sci. Vol. 5, No. 1	p.p. 97-109
	1966	Surficial Geology of Algoma, Sudbury, Timiskaming and Nipissing	O.D.L. & F. Map S465	1" = 8 miles
Dep't of Energy, Surveys and Mapping Branch	1974	Topographic Map, Sturgeon Falls, 31 L/5		1:50,000

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
Gartner, J. F.	1980	N.O.E.G.T. Study 101 Data Base Map Septic Systems Capability Map	 O.G.S. Map 5041 O.G.S. Map 5044	 1:100,000 1:100,000
	1978	N.O.E.G.T.S., Data Base Map, Sudbury	O.G.S. Map 5003	1:100,000
	1980	N.O.E.G.T.S., Sudbury Area, Study 100		
Graham, R. B.	1979	Some Peat Moss and Peat Deposits in Selected Areas	O.G.S. MDC 19	p.p. 20-23, 87, 117
		MINERAL POTENTIAL MAPS		
O.G.S. and Mineral Resources Branch	1982	Mineral Potential Map of Ontario, East Central Sheet	OFR 5228	1" = 16 miles
Springer, J. S.	1978	Ontario Mineral Potential, parts of North Bay, Deep River, and Ville Marie Sheets	O.G.S. Map P.1510	1:250,000
	1983	Industrial Minerals of Ontario	O.G.S. Map P.2591	1:500,000
		GEOCHEMICAL		
		No data available as of May 21, 1987		
		GEOLOGICAL REPORTS AND MAPS		
Barlow, A. E.	1899	Report on the Geology and Natural Resources of the Area Included by the Nipissing and Temiscaming Map Sheets	G.S.C. AR 10, pt. 1 G.S.C. Map 599 G.S.C. Map 606	302 pp.
	1908	Ibid., 2nd Edition	G.S.C. Pub. No. 962 G.S.C. Map 944	303 pp.

GDIF FORM NO.9

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
Bell, R.	1898	Report on the Geology of the French River Sheet	G.S.C. AR 9, pt. 1 G.S.C. Map 570	29 pp. 1" = 4 miles
Chapman, L. J., Putnam, D. F.	1975	Physiography of the Georgian Bay - Ottawa Valley Area	O.D.M. GR 128 O.D.M. Map 2228	 1" = 4 miles
Geoscience Data Centre	1986	Ontario Mineral Deposit Inventory	OFR 5470	
Gupta, V. K., Grant, F. S., Boud, A.	1981	A Gravity Study in North Central Ontario, Districts of Sudbury, Nipissing and Timiskaming	O.G.S. MP 100 No. 26	p.p. 160-164
Gupta, V. K.	1982	Gravity and Aeromagnetic Studies in North-Central Ontario	O.G.S. MP 106 No. 24	p.p. 160-164
Heinrich, E. W.	1966	The Geology of Carbonatites. Rand McNally and Co. Chicago		555 pp.
Lumbers, S. B.	1971	Burwash Area (East Half)	ODMNA Map P.681	1" = 1 mile
	1975	Geology of the Burwash Area	O.D.M. GR 116 O.D.M. Map 2271	 1" = 2 miles
	1971	Geology of the North Bay Area	O.D.M. GR 94 ODMNA Map 2216	 1" = 2 miles
Sage, R. P.	1983	Literature Review of Alkalic Rocks - Carbonatites	OFR 5436	
Traill, R. J.	1970	A Catalogue of Canadian Minerals	G.S.C. Paper 69-45	649 pp.
Vincent, J. S., Hardy, L.	1979	The Evolution of Glacial Lakes Barlow and Ojibway, Quebec and Ontario	G.S.C. Bull. 316	

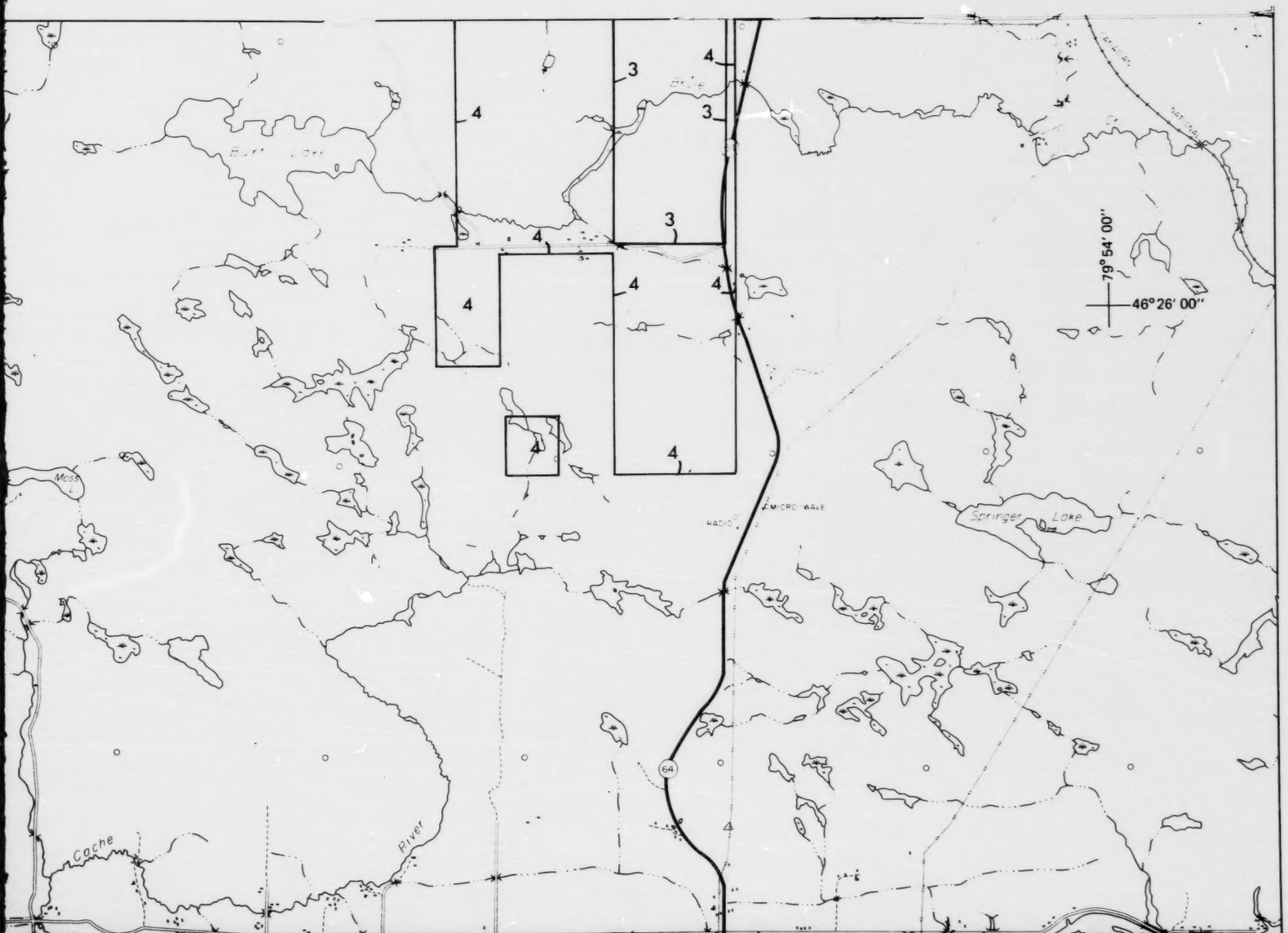
GDIF FORM NO.9

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
		JOURNAL ARTICLES, THESES, TECHNICAL REPORTS		
Doig, R., Barton J. M., Jr.	1968	Ages of Carbonatites and Other Alkaline Rocks in Quebec	Can. J. Earth Sci. Vol. 5, No. 6	p.p. 1404-07
Gittins, J., Lumbers, S. B	1972	Alkalic Rocks Complexes and Carbonatites of Ontario and Part of Quebec	Guidebook, Field Excursion A53-C53, 24th Int. Geol. Cong., Montreal	41 pp.
Gittins, J., MacIntyre, R. M., York, D.	1967	The Ages of Carbonatite Complexes in Eastern Canada	Can. J. Earth Sci. Vol. 4, No. 4	p.p. 651-655
Harding, W. D.	1930	Origin of the Grenville Gneisses, M.Sc., Queen's Univ	MP 2	p. 24
Mineral Resources Branch	1979	Ontario Mining Statistics - A Preliminary Compendium. Cerium	MNR - MPBP 11	P. 7.1*
Robjohns, N.	1986	Rare Earths; in Mining Annual Review, Mining Journal, London		p. 91
Shannon, S. S., Jr.	1983	Rare Earths and Thorium in Industrial Minerals and Rocks, 5th Edition, Vol. 2		p.p. 1109-1118
Siemiatkowska, K. M.	1971	Fenitic Breccias in the Sudbury Area, M.Sc., McGill Univ.	Sudbury Theses File	
U.S. Bureau of Mines	1985	Mineral Facts and Problems. Rare Earth Elements & Yttrium	B.O.M. Bull. 675	p.p. 651-664

GDIF FORM NO.9

Otter Lake
Otter Lake
Cache River
Cache River
West
Brûlé
Brûlé
Cr.
Springer Lake
MICRO WAVE
RADIO
79° 54' 00"
46° 26' 00"
64
2
3
4



Ministry of Northern Development and Mines

Ontario

Sean Conway, Minister of Mines

ONTARIO GEOLOGICAL SURVEY

PROPERTY LOCATION MAP

GEOLOGICAL DATA INVENTORY FOLIO 422

(Map 1 of 2)

SPRINGER TOWNSHIP

DISTRICT OF NIPPISING

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 Mile

Cache River

Cache River

Little

64

Caderette

CANADIAN PACIFIC

Cache Bay

64

Sturgeon Falls

CANADIAN PACIFIC

17

CANADIAN PACIFIC

Cache Bay

Mos. I.

Cache I.

Bay

Bev I.

Veuve

80°02'00"

46°20'30"

Ferris Pt.

Sturgeon River

STURGEON FALLS AIRFIELD

Cache Bay

Sturgeon Falls

Ferris Pt.

STURGEON FALLS AIRFIELD

CANADIAN PACIFIC

Cache River

Sturgeon River

EXPLORATION DATA FILE AREAS

■ 1 6 Reference number is always inside work area outlined. See listing in text pages.

□ x 4 Small area exploration.

80°02' 00"

46°20' 30"

Vau

R

Ferris Pt.

Sturgeon

STURGEON FALLS AIRFIELD

1

Mousseau Pt.

Goulais Island Pt.

Goulais

Point

Garden I.

Lake Nipissing

Sturgeon

Ferris Pt.

STURGEON FALLS AIRFIELD

1

Mousseau Pt.

Goulais Island Pt.

Lake Nipissing

Garden I.

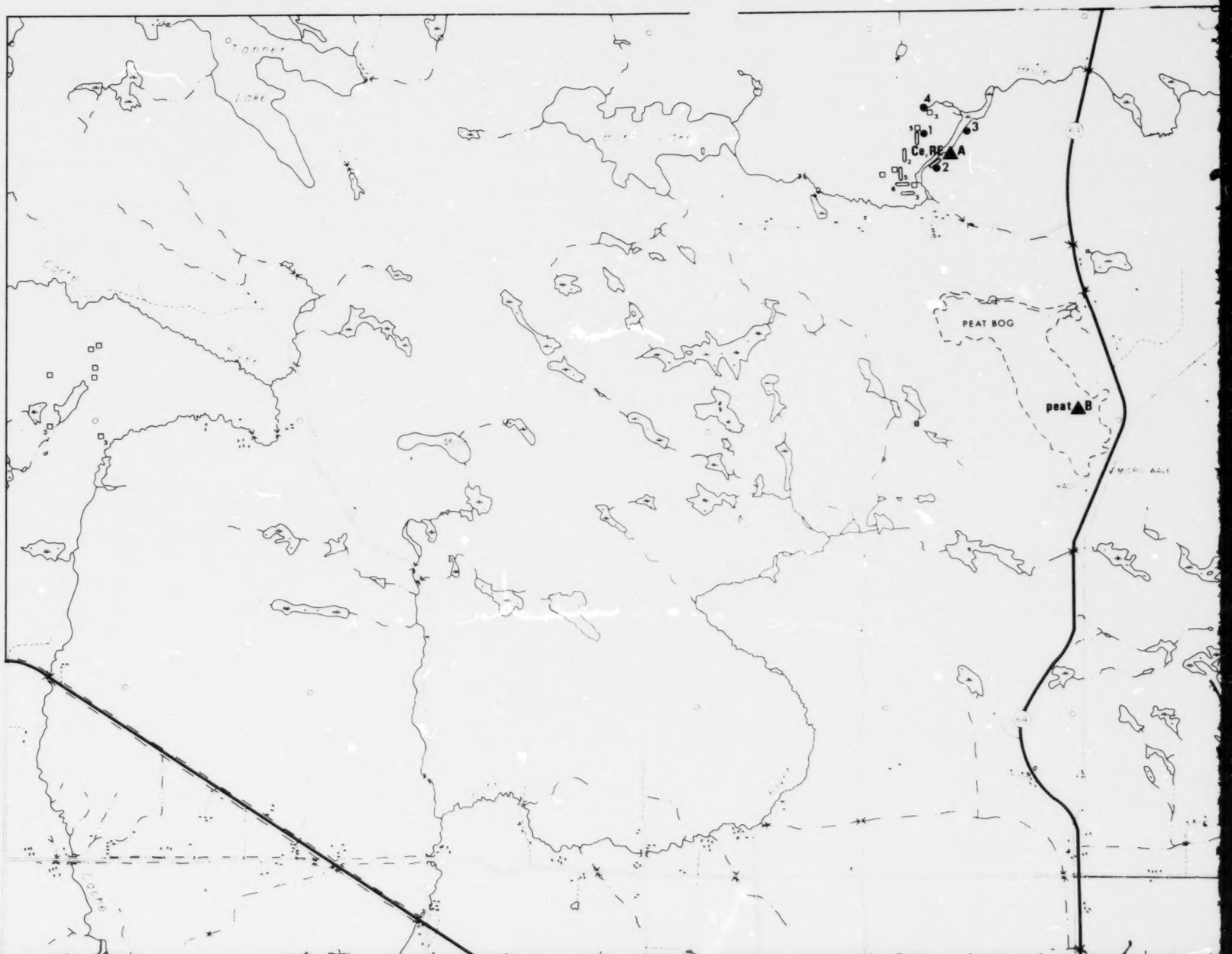
TYPES OF DATA SHOWN ON THIS MAP

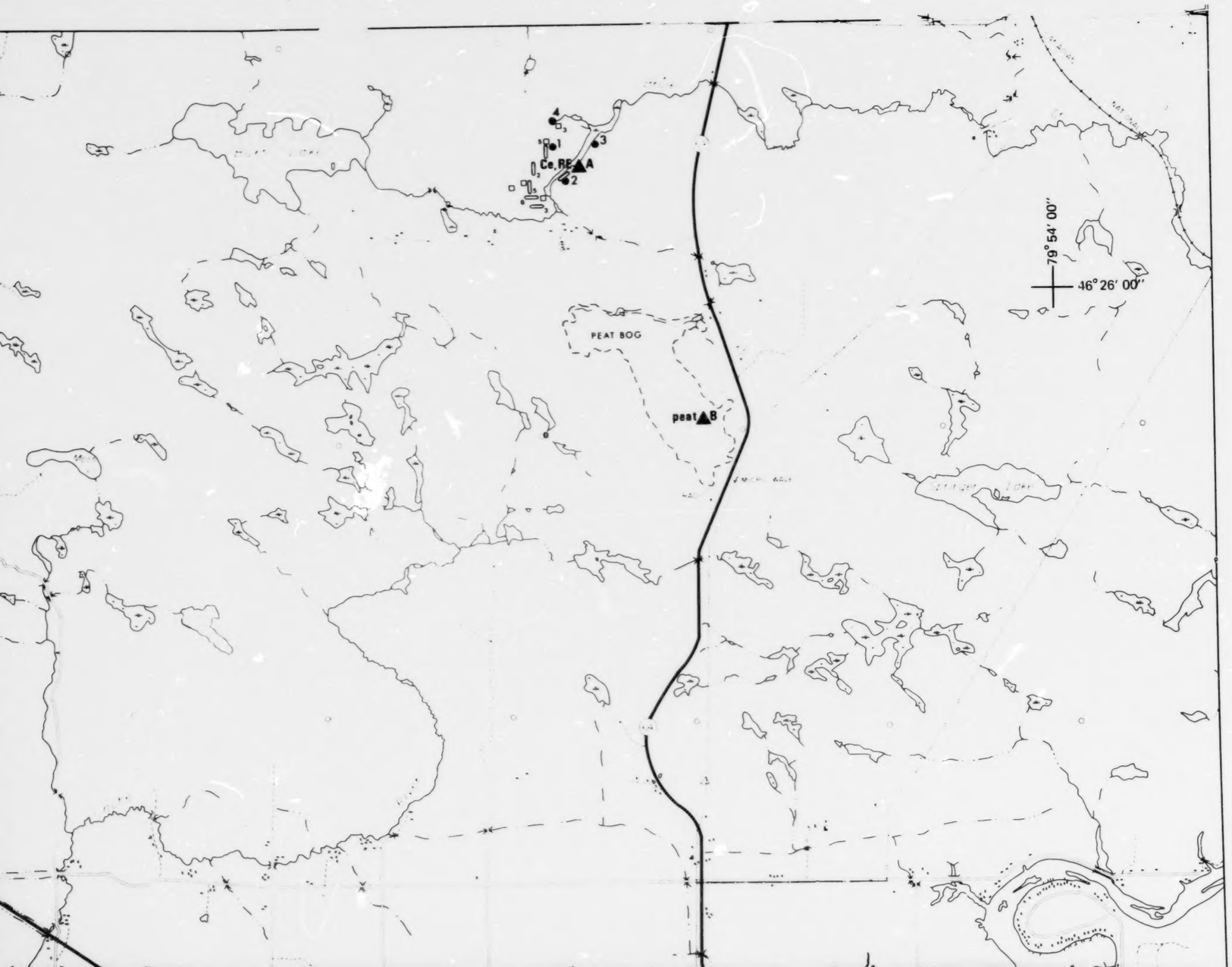
GEOCHEMICAL AND GEOCHRONOLOGICAL DATA

- ◆3 — Geochemical sample site, with reference number
- ◆3 — Area of geochemical sampling, with reference number
- ✳2 — Age dating material sampling site, with reference number

GEOPHYSICAL ANOMALIES

- AM — Airborne magnetic anomaly
- Airborne electromagnetic anomaly Length of anomaly along flight line
- Airborne electromagnetic anomaly Location of anomaly along flight line
- Airborne electromagnetic anomaly Conductor axis: definite, probable, possible
- ARA — Airborne radiometric anomaly
- M — Ground magnetic anomaly
- VL — Ground electromagnetic anomaly (VL - Vertical loop; HL - Horizontal loop; VLF - Very low freq; Turam; JEM - Crone Em - 16)
- RA — Ground radiometric anomaly
- IP — Induced polarization anomaly
- SP — Self potential anomaly
- AFMAG — Audio-frequency magnetic anomaly (total intensity)





Ministry of Northern Development and Mines

Ontario

Sean Conway, Minister of Mines

ONTARIO GEOLOGICAL SURVEY

EXPLORATION DATA MAP

GEOLOGICAL DATA INVENTORY FOLIO 422

(Map 2 of 2)

SPRINGER TOWNSHIP

DISTRICT OF NIPISSING

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

GEOLOGICAL AND MINING SYMBOLS

TYPES OF DATA SHOWN ON THIS MAP

MINERAL OCCURRENCES

- cp A. — Mineral occurrence at surface, with reference letter
- Au A. 84' — Mineral occurrence with shaft, depth given with reference letter
- Ag A. — Mineral occurrence reported but exact location uncertain, with reference letter
- cp A. — Mineralized float with reference letter

DRILLHOLE

- ☐ Airborne electromagnetic anomaly
  Conductor axis: definite, probable, possible
- ☐ —ARA— Airborne radiometric anomaly
- ☐ —M— Ground magnetic anomaly
- ☐ —VL— Ground electromagnetic anomaly
  (VL - Vertical loop; HL - Horizontal loop;
  VLF - Very low freq; Turam, JEM -
  Crone Em - 16)
- ■ —RA— Ground radiometric anomaly
- ☐ —IP— Induced polarization anomaly
- ☐ —SP— Self potential anomaly
- ☐ —AFMAG— Audio-frequency magnetic anomaly
  (total intensity)
- ☐ —R— Resistivity anomaly
- ☐ —GR— Gravity anomaly
- ☐

MISCELLANEOUS DATA

- ■ Trenching, pit
- ☐ Adit
- ☐ Open pit
- ☐
- ☐ Rock quarry
- ☐ Sand and/or gravel pit
- ☐

NOTE: Consult the text that accompanies this map for pertinent lists of data, references, and abbreviations.

80° 02' 00"

46° 20' 30"

—RA—

—RA—

TYPES OF DATA SHOWN ON THIS MAP

MINERAL OCCURRENCES

- cp ▲ A. — Mineral occurrence at surface, with reference letter
- Au ◪ A. 84' — Mineral occurrence with shaft, depth given with reference letter
- Ag △ A. — Mineral occurrence reported but exact location uncertain, with reference letter
- cp ▬ A. — Mineralized float with reference letter
- ☐ —

DRILLHOLE

- ● 2 — Location of single drillhole, with reference number
- ◎ 2 — Location of closely spaced group of drillholes, with reference number
- ? 2 — Drillhole, exact location uncertain, with reference number
- ◡ — Property with underground drillholes in this general area, with reference number
- ○ 2 — Property with drillholes which have not been plotted on map, with reference number
- ⊕ 2 — Reverse circulation drillhole; churn drilling, with reference number
- ☐ —

80° 02' 00''

46° 20' 30''

RA

RA

RA

RA

RA

RA